

WHAT IS CLAIMED IS:

1. A communication system, comprising:

a transmitter for transmitting one or more data packets;

at least one receiver connected to the transmitter, for receiving the data packets and transmitting to the transmitter one or more response signals in response to the received data packets; and

a multiplexer for multiplexing and transmitting to the transmitter the response signals transmitted from the receiver, and transmitting the transmitted data packets from the transmitter to a corresponding receiver, the multiplexer provided with a queue status monitor for monitoring a queue status of at least one of the transmitted data packets and the response signals, and a congestion control adjuster for instructing the receiver to hold or compress the response signals based on the monitored queue status.

2. The communication system as claimed in claim 1, wherein the receiver includes a response signal holding/compressing unit for, if instructed by the congestion control adjuster to hold the response signals, holding the response signals for a first predetermined period of time, and, if instructed by the congestion control adjuster to compress the response signals, compressing the response signals for a second predetermined period of time.

3. The communication system as claimed in claim 2, wherein the congestion control adjuster instructs the corresponding receiver to hold the response signals if the queue status of the monitored data packets is over a first threshold.

4. The communication system as claimed in claim 2, wherein the congestion control adjuster instructs the corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and over a second threshold.

5. The communication system as claimed in claim 2, wherein the congestion control adjuster instructs the corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and the queue status of the response signals is over a second threshold.

6. The communication system as claimed in claim 2, wherein the transmitter transmits the data packets at a first transmission rate exceeding 6 Mbps, and the receiver transmits the response signals at a second transmission rate under 900 Kbps.

7. A communication system, comprising:

at least one transmitter for transmitting one or more data packets;

at least one receiver belonging to a private network and connected to the transmitter, for receiving the data packets and transmitting to the transmitter one or more response signals in response to the received data packets; and

a gateway for arbitrating a communication protocol between the transmitter and the private network, the gateway provided with a queue status monitor for monitoring a queue status of at least one of the transmitted data packets and the response signals, and a congestion control adjuster for instructing the receiver to hold or compress the response signals based on the monitored queue status.

8. The communication system as claimed in claim 7, wherein the receiver includes a response signal holding/compressing unit for, if instructed by the congestion control adjuster to hold the response signals, holding the response signals for a first predetermined period of time, and, if instructed by the congestion control adjuster to compress the response signals, compressing the response signals for a second predetermined period of time.

9. The communication system as claimed in claim 8, wherein the congestion control adjuster instructs a corresponding receiver to hold the response signals if the queue status of the monitored data packets is over a first threshold.

10. The communication system as claimed in claim 8, wherein the congestion control adjuster instructs a corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and over a second threshold.

11. The communication system as claimed in claim 8, wherein the congestion control adjuster instructs a corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and the queue status of the response signals is over a second threshold.

12. The communication system as claimed in claim 8, wherein the transmitter transmits the data packets at a first transmission rate exceeding 6 Mbps, and the receiver transmits the response signals at a second transmission rate under 900 Kbps.

13. A communication method in which a receiver receiving data packets from a transmitter transmits to the transmitter response signals corresponding to the data packets, comprising:

monitoring a queue status of at least one of the data packets and the response signals;

instructing the receiver to hold or compress the response signals based on the monitored queue status; and

holding the response signals for a first predetermined period of time if the holding of the response signals is instructed, and compressing the response signals for a second predetermined period of time if the compression of the response signals is instructed.

14. The communication method as claimed in claim 13, wherein a congestion control adjuster instructs a corresponding receiver to hold the response signals if the monitored queue status of the data packets is over a first threshold.

15. The communication method as claimed in claim 13, wherein a congestion control adjuster instructs a corresponding receiver to compress the response signals if the monitored queue status of the data packets is under a first threshold and over a second threshold.

16. The communication method as claimed in claim 13, wherein a congestion control adjuster instructs a corresponding receiver to compress the response signals if the monitored queue status of the data packets is under a first threshold and the monitored queue status of the response signals is over a second threshold.